




ERS 335 Restoration Ecology

2018 Syllabus



The professor for the course is [Stephen D. Murphy](#)

Steve has a B.Sc. (Hons.), Ph.D. in Biology & is a Professor & the School Director.
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Steve is also Editor-in-Chief of Restoration Ecology, Chair of the Centre for Applied Sciences in Ontario Protected Areas, and Board Member of the Ontario Invasive Species Centre. He is also short, voluble, has a family, and, apparently, does not sleep.

ERS 335 has two required texts (@ UW Bookstore or other sellers; used copies are OK).

- Newcomb L; Morrison. G. 1977. Newcomb's wildflower guide. Little Brown & Co.¹
- Allison SK and Murphy SD Routledge Handbook of Ecological and Environmental Restoration.
<https://www.routledge.com/Routledge-Handbook-of-Ecological-and-Environmental-Restoration/Allison-Murphy/p/book/9781138922129>. I recommend purchasing an e-version; the 6-month rental is cheapest (about \$35.00 CDN). We will use all the chapters in the book.²

All other readings will use sources available on-line via LEARN; there is no extra cost.

¹ This is used in most of our field ecology courses so if you're keen on ecology, you may already have it; you will get a lot of use out of it.

² Yes, the 2nd author is me. No, I will not get rich by having you buy or rent a copy; I get about 50 cents per hardcopy sold and much less for e-rentals; we sold/rented a LOT of copies in 2017 and I made \$722.50. Stu Allison and I edited the book because we wanted a modern book that people could use to teach restoration ecology; we did not do it to make any real income.

This is the ERS 335 class, field activities, & assignment schedule

DATE/TOPIC/READING – MWF 1330-1420 (AL 208 OR OUTSIDE - YAY!)	CLASS OR FIELD ACTIVITIES & ASSIGNMENTS	LEARNING OUTCOMES
Sept 7: Foundations & Applications of Ecological Restoration <i>Murphy and Allison 2017; Choi 2017; Higgs and Jackson 2017; Cabin 2017; Allison 2017</i>	We will discuss the changing nature of what restoration ecology is	Understand the scope & practicalities of restoration ecology
Sept 10: Field skills in Applied Ecological Restoration I	We go outside and do Site Assessments of meadows using herbs and forbs as indicators; if the insects are active, we will add those to our indicator list	Learn to assess meadow sites and plan site-based ecological restoration
Sept 12: Field skills in Applied Ecological Restoration II	We go outside and do Site Assessments of riparian zones using herbs and forbs as indicators	Learn to assess riparian sites and plan site-based ecological restoration
Sept 14: Field Skills in Applied Ecological Restoration III	Guided by our Site Assessments, we go outside and continue the process of restoring meadows, and riparian zones	Learn to implement ecological restoration
Sept 17: Biodiversity as a goal, indicator or outcome of restoration ecology <i>Booth et al. 2010</i>	Reflecting on our field skills classes, examine what we found and how this relates to various concepts of how biodiversity relates to restoration ecology	Determine how well biodiversity serves the concept of restoration ecology
Sept 19: Experimental design in restoration ecology	We discuss controlled and mensurative experimental designs in restoration ecology	Learn to design experiments in restoration ecology
Sept 21: Principles of data analysis in restoration ecology <i>Murphy 2018 (primer on stats)</i>	We examine parametric, non-parametric, and multivariate analyses in restoration ecology	Learn the principles of analyses in restoration ecology

<p>Sept 24: Practicum in Data analysis in restoration ecology</p> <p><i>See Assignment part 2; see also dataset provided in LEARN folder for Sept 24 class</i></p>	<p>We do a class exercise where we use the open source program r to analyze a real dataset from a restoration ecology project</p>	<p>Learn how to do analyses using software; prepares you for Term Assignment Part 2</p>
<p>Sept 26: No class</p>	<p>Term Assignment Part 1 is due today at 2300 h. via LEARN</p>	
<p>Sept 28: Synthesizing data and measuring outcomes of ecological restoration</p> <p><i>Wortley et al 2013</i></p>	<p>Provides theoretical foundations of how data supports decisions in restoration ecology</p>	<p>Learn the fundamental options of measuring outcomes in restoration ecology</p>
<p>Oc 1 Restoration ecology at population scales</p> <p><i>Murphy et al 2017</i> <i>Larkin et al 2004</i> <i>McKay et al 2005</i></p>	<p>Provides theory behind how population scale restoration works</p>	<p>Use population theories in problem solving for restoration ecology</p>
<p>Oc 3 Restoration ecology at community scales</p> <p><i>Palmer et al 1997; Harris 2009</i> <i>Kardol & Wardle 2010</i></p>	<p>Provides theory behind how community scale restoration works</p>	<p>Community scales are perhaps the major focus in restoration ecology so this shows how we use theory to problem solve</p>
<p>Oc 5 Restoration ecology at landscape scales</p> <p><i>Bell et al 1997; Perring 2017</i></p>	<p>Explores examples of spatial processes (landscape ecology) in restoration</p>	<p>Use landscape ecology theories & apply to restoration ecology</p>
<p>Oc 8 No Class - Thanksgiving</p>		
<p>Oc 10 No Class – Fall Study Break</p>		
<p>Oc 12 Governance, law, policy and restoration ecology</p> <p><i>Cliquet 2017; Mansourian 2017</i></p>	<p>Natural & physical sciences are important but social science issues may be even more critical to restoration ecology</p>	<p>Examine the legal, governance and government (policy) drivers for and against restoration ecology</p>
<p>Oc 15 Social capacity and ecological restoration I</p> <p><i>Metcalfe et al 2017; Packard 2017; Baker 2017; Heneghan and Heneghan; Edwards et al 2017</i></p>	<p>Building social consensus and social capacity was once overlooked in restoration ecology; this addresses that form gap</p>	<p>Allows us to understand how social processes can help or hinder restoration ecology solutions as this is a big part of being a professional</p>

<p>Oc 17 Social capacity and ecological restoration II</p> <p><i>Metcalf et al 2017; Packard 2017; Baker 2017; Heneghan and Heneghan; Edwards et al 2017</i></p>	<p>Building social consensus and social capacity was once overlooked in restoration ecology; this addresses that form gap</p>	<p>Allows us to understand how social processes can help or hinder restoration ecology solutions as this is a big part of being a professional</p>
<p>Oct 19 Ecological restoration and economics I</p> <p><i>Bowers & Norris 2017 Baumber 2017</i></p>	<p>The business and broader economics of restoration ecology are a driver to the green economy</p>	<p>Gain a high level but still practical understanding of green economy and restoration ecology</p>
<p>Oc 22 Ecological restoration and economics II</p> <p><i>Blignaut 2017; Williams 2017</i></p>	<p>Delving more deeply into the restoration economy's theory and practice</p>	<p>Be able to use case studies for comparative understanding and analysis of restoration economy projects</p>
<p>Oct 24 Restoration Ecology in Tropical Ecosystems I</p> <p><i>Byers 2017; Brown 2017; Segura 2017; Overbeck and Muller 2017; Lamb 2017</i></p>	<p>Shows how people approach restoration ecology in different types of tropical ecosystems</p>	<p>Term Assignment Part 2 is due today at 2300 via LEARN</p> <p>We'll understand if there anything unique about restoration in the tropics</p>
<p>Oct 26 Restoration Ecology in Tropical Ecosystems II</p> <p><i>Byers 2017; Brown 2017; Segura 2017; Overbeck and Muller 2017; Lamb 2017</i></p>	<p>Shows how people approach restoration ecology in different types of tropical ecosystems</p>	<p>We'll understand if there anything unique about restoration in the tropics; we will have covered every major aspect of this topic</p>
<p>Oct 29 Restoration Ecology in Temperate Ecosystems I</p> <p><i>Kulluvainen 2017; Stanturf 2017 Prach et al 2017; Hanberry et al 2017</i></p>	<p>The temperate zones include much of Canada so we need to understand how restoration is done here – and in places like Canada</p>	<p>We'll understand if there anything unique about restoration in the temperate zones</p>
<p>Oct 31 Restoration Ecology in Temperate Ecosystems II</p> <p><i>Kulluvainen 2017; Stanturf 2017 Prach et al 2017; Hanberry et al 2017</i></p>	<p>The temperate zones include much of Canada so we need to understand how restoration is done here – and in places like Canada</p>	<p>We'll understand if there anything unique about restoration in the temperate zones</p>

<p>Nov 2 Mining Remediation: Lessons Learned from the Giant Mine Case Study</p> <p><i>O'Reilly 2015</i></p>	<p>ERS alumnus Kevin O'Reilly will discuss how we approach remediation in the context of restoration, environmental assessment and policy</p>	<p>We will be able to draw on an ERS-trained expert to understand how the biggest case example of remediation in Canada has lessons for all</p>
<p>Nov 5 Restoration Ecology in Desert/Dryland Ecosystems I</p> <p><i>Abella 2017; Mucina 2017</i></p>	<p>Deserts and drylands tend to get neglected in some cases and over-pampered in others; we will explore what happens</p>	<p>We will understand when we should or should not try and restore these ecosystems (and if so, how)</p>
<p>Nov 7 Restoration Ecology in Desert/Dryland Ecosystems II</p> <p><i>Abella 2017; Mucina 2017</i></p>	<p>Deserts and drylands tend to get neglected in some cases and over-pampered in others; we will explore what happens</p>	<p>We will understand when we should or should not try and restore these ecosystems (and if so, how)</p>
<p>Nov 9 Restoration Ecology in Freshwater Ecosystems I</p> <p><i>Smith and Chadwick 2017; Jeppesen et al. 2017; Keddy 2017</i></p>	<p>Freshwater ecosystems are the 'canary in the coal mine'; we'll explore options for ecological restoration</p>	<p>We will understand how freshwater ecosystems are affected by disturbance and how we can restore them</p>
<p>Nov 12 Restoration Ecology in Freshwater Ecosystems II</p> <p><i>Smith and Chadwick 2017; Jeppesen et al. 2017; Keddy 2017</i></p>	<p>Freshwater ecosystems are the 'canary in the coal mine'; we'll explore options for ecological restoration</p>	<p>We will understand how freshwater ecosystems are affected by disturbance and how we can restore them</p>
<p>Nov 14 Restoration Ecology in Marine Ecosystems</p> <p><i>Burdick and Adamowicz 2017; Coen and Humphries 2017; Hancock et al 2017</i></p>	<p>Marine ecosystems are perhaps a big mystery to most because they are hard to access; we'll mainly explore inshore and near shore types of ecosystems</p>	<p>Learn how we can restore such iconic ecosystems as coral reefs and estuaries</p>
<p>Nov 16 Urban Restoration Ecology</p> <p><i>Norris et al. 2017</i></p>	<p>As more people live in urban areas, the need to restore is urgent; we'll explore how</p>	<p>We will have a good grounding of how ecological restoration is done in a seemingly impossible set of circumstances</p>
<p>Nov 19 Restoration Ecology and Invasive Species</p> <p><i>Dudney et al 2017</i></p>	<p>Invasive species can be a problem for restoration; we'll explore how we should research and act</p>	<p>We will understand how to define thresholds for action on invasive species in restoration ecology</p>

Nov 21 The Big Picture of Restoration Ecology I <i>Trevenen et al 2017; Chazdon and Rey Benayas 2017; Murphy 2018</i>	The regime changes caused by anthropogenic climate change and the tools needed to address these Earth scale issues will be explored	We will learn the scope of the problem in detail and how we can cope with such widespread and rapid degradation – how do we effect restoration in a hostile social/environment?
Nov 23 The Big Picture of Restoration Ecology II <i>Trevenen et al 2017; Chazdon and Rey Benayas 2017; Murphy 2018</i>	The regime changes caused by anthropogenic climate change and the tools needed to address these Earth scale issues will be explored; we will have some focus on strategic issues today	We will learn the scope of the problem in detail and how we can cope with such widespread and rapid degradation – how do we effect restoration in a hostile social/environment?
Nov 26 – No Class	Term Assignment Part 3 is due today at 2300 h via LEARN	
Nov 28 The Future of Restoration Ecology I <i>McDonald et al 2016; Higgs et al 2018a,b; Gann et al 2018; Hobbs et al 2009; 2014a; 2014b; Murcia et al 2014; Murphy 2013b; 2013c</i>	We'll discuss how controversies erupt, especially when long held ideas are challenged	Novel ecosystems are ones not likely to be restored to a 'historical' condition; we seek to answer if this is defeatist or simply practical
Nov 30 The Future of Restoration Ecology II <i>McDonald et al 2016; Higgs et al 2018a,b; Gann et al 2018; Hobbs et al 2009; 2014a; 2014b; Murcia et al 2014; Murphy 2013b; 2013c</i>	We'll discuss how controversies erupt, especially when long held ideas are challenged	Novel ecosystems are ones not likely to be restored to a 'historical' condition; we seek to answer if this is defeatist or simply practical
Dec 3 Course Evaluation & Exam Review	Evaluate the course and discuss the exam	You will have a chance to improve the course and will get a lot of exam hints and help here

ERS 335 Course Scope

This is a transdisciplinary course that reflects the essence of ecological integrity and restoration ecology – but there still is a clear emphasis on natural/physical sciences, integration with social sciences & engineering, ecosystem function, and quantitative analysis.



Before and After Ecological Restoration – Cape Breton NS (15 Years Apart & \$275,000 Investment)

Course learning objectives

By the end of this course, you will be able to:

- Acquire and improve field identification skills of organisms for the purposes of ecological monitoring (and assessment) in a restoration ecology context
- Acquire and improve experimental design and advanced data (quantitative/statistical) analysis skills related to measuring outcomes of ecological restoration; you will be at an intermediate level of skill and competence for experimental design and analysis using parametric and non-parametric statistics
- Perform basic implementation of ecological restoration in a long-term project (i.e. an ongoing restoration project implemented and monitored by UW students every year)
- Apply explanatory theories to case studies or examples at various spatial and temporal scales
- Critique & evaluate use of explanatory theories in their application in case studies
- Synthesize lessons from case studies in terms of general practice of restoration ecology and assessment of ecological integrity
- Using the comparative method, apply learning outcomes to your assignments, the final exam, and beyond
- Use all above skills in a consultant style report (professional communication) and in creative design for ecological restoration

How I Grade You as Part of ERS 335
(See the 335 Assignment Folders in the Course LEARN Site for More Details)

- Term Assignment, Divided into 3 Parts (3 Submission Dates): Each student will write a formal technical report in the format used by consultants. This ensures you have yet another skill set for your life experience and that looks good on a CV/resume. Start plotting out this assignment early and start each section as early as possible. I've seen too many students in the last 20 years cause themselves grief because of poor time management and a failure to heed this advice. They go down in flames. And I drink their bitter tears. Mmmmm. Bitter tears. Everything is submitted via LEARN so that's where you will get feedback and grades from; I tend not to use the LEARN gradebook as it is of dubious reliability but the grade for each assignment is provided during feedback to you.
 - Term Assignment Part 1. Submit a draft introduction contextualizing applied ecological restoration study. Weight: 10% of final grade; 750 - 1000 word count maximum.
Due Date is Wednesday September 26 at 2300 h. via LEARN
 - Term Assignment Part 2. Data Analysis. Analyze data on restoration projects using open source software and submit the Results in a coherent format. Weight 10% of final grade.
Due Date is Wednesday October 24 at 2300 h. via LEARN.
 - Term Assignment Part 3. Writing a Complete Research/Consultant Style Technical Report. Word Limit: 7500 words (not including tables or literature cited). Weight: 30% of Final Grade. **Due Date is Monday November 26 at 2300 h. via LEARN.**

- A final exam is based on our discussions (including all lecture and field days). Scheduled in December exam period by Registrar. Do not schedule an early vacation because the Registrar can schedule us for a late exam or there can be a snow day forcing a late reschedule. The exam will focus on point form explanatory style answers to questions largely posed as synthesis or problem-solving exercises. Typically, I will have 6-8 questions but there will be some choice in selecting options within the questions given. If you like to skip the last classes on principle - that approach would be a very bad idea. Despite the scary looking weighting given to the final exam, this is the type of weight and format that professionals must master when becoming professionally certified. Your grade on the final exam is maximized if you go to class diligently, synthesize your own class notes + my slides each week - keep up with the course, discuss any gaps in your understanding with me + TAs + friends, review practice questions that I send out during term, and step back and give the whole course some deep thought. Basically, if you perform as scholars, you will do well.

Course Processes & Other Key Information

Experiential Learning: We Have 3 Classes Devoted to Field Skills Practicum: During the exercises, I go outside with you and we do some data collection on the type of plants found at areas undergoing ecological restoration and we focus on using seeding for ecological restoration. This ensures you get some experiential learning during the late summer.

You are expected to review assigned readings before and after each class. I selected peer-reviewed readings (see LEARN Lessons Folder & Class Schedule) for your use as background on the topics we will discuss in class and as sources for your assignments. You can also use these to help you find other relevant references. I follow the readings in class and base my lessons on them; whatever we emphasize in class will be emphasized on the final exam. I do not play Trivial Pursuit on exams.

Your assignments will be submitted on line via LEARN to reduce use of paper. They are due @ 2300 h on the date indicated in this syllabus. They will be graded and commented on using the track changes feature of MS Word. 10 MB limit on file size. Call them surname_firstname_335AX where X = 1,2, or 3. Don't take this too literally; swap in your own name please.

Read, explore databases, & start work on assignments during the first week of classes – you can do a lot of the work on reports early; if you don't, you will be cursed (and will curse). Late assignment penalties apply as follows and to all cases except for those few extensions granted for medical reasons or for professional counseling for serious personal problems – extensions can be granted with proper documentation or discussion well in advance. For those who are in their 2A term, take note: This can be a very challenging term. Often, you go through personal changes. I am sympathetic but we need to communicate; if you identify a problem of any type, come and see me ASAP. All discussions confidential, we can usually work out a better path, and I have cookies. Yes, cookies. No, there's nothing like THAT in them. I know ERS has a reputation for being home to more potheads per capita than is usual, but I have to maintain some standards. That stuff always just gave me a headache - it made me cranky instead of blissful, dude.

There are penalties for submitting assignments after the due date. For each assignment, if the assignment is up to 48 hours late, a flat 10% is deducted. No exceptions barring the reasons above. This is a relatively small penalty and it means that if you are 6 hours late you might as well take another day or two anyway. If the assignment is >48 and < 144 hours late, a flat 25% is deducted. Assignments later than 144 hours (7 days) past deadline receive a grade of 0.

The University of Waterloo has a series of specific *academic policies, procedures and guidelines* that students must be aware of and follow. See also <https://uwaterloo.ca/environment/undergraduate-teaching-resources>; all course syllabi in the Faculty of Environment are required to include the following:

Intellectual Property:

For further information on IP related to teaching, please see https://uwaterloo.ca/legal-and-immigration-services/sites/ca.legal-and-immigration-services/files/uploads/files/volume_1_issue_3_winter_2018.pdf and the Guidelines for Faculty, Staff and Students Entering Relationships with External Organizations Offering Access to Course Materials, <https://uwaterloo.ca/secretariat/faculty-staff-and-students-entering-relationships-external>. The following text is recommended:

Students should be aware that this course contains the intellectual property of their instructor, TA, and/or the University of Waterloo. Intellectual property includes items such as:

- Lecture content, spoken and written (and any audio/video recording thereof);
- Lecture handouts, presentations, and other materials prepared for the course (e.g., PowerPoint slides);
- Questions or solution sets from various types of assessments (e.g., assignments, quizzes, tests, final exams); and
- Work protected by copyright (e.g., any work authored by the instructor or TA or used by the instructor or TA with permission of the copyright owner).

Course materials and the intellectual property contained therein, are used to enhance a student's educational experience. However, sharing this intellectual property without the intellectual property owner's permission is a violation of intellectual property rights. For this reason, it is necessary to ask the instructor, TA and/or the University of Waterloo for permission before uploading and sharing the intellectual property of others online (e.g., to an online repository).

Permission from an instructor, TA or the University is also necessary before sharing the intellectual property of others from completed courses with students taking the same/similar courses in subsequent terms/years. In many cases, instructors might be happy to allow distribution of certain materials. However, doing so without expressed permission is considered a violation of intellectual property rights.

Please alert the instructor if you become aware of intellectual property belonging to others (past or present) circulating, either through the student body or online. The intellectual property rights owner deserves to know (and may have already given their consent).

Mental Health:

The University of Waterloo, the Faculty of Environment and our Departments/Schools consider students' well-being to be extremely important. We recognize that throughout the term students may face health challenges - physical and / or emotional. **Please note that help is available.** Mental health is a serious issue for everyone and can affect your ability to do your best work. Counselling Services

<http://www.uwaterloo.ca/counselling-services> is an inclusive, non-judgmental, and confidential space for anyone to seek support. They offer confidential counselling for a variety of areas including anxiety, stress management, depression, grief, substance use, sexuality, relationship issues, and much more.

Religious Observances:

Students need to inform the instructor at the beginning of term if special accommodation needs to be made for religious observances that are not otherwise accounted for in the scheduling of classes and assignments.

Unclaimed assignments:

Unclaimed assignments are held in the LEARN archives until U Waterloo chooses to delete them. After that time, they will be destroyed in compliance with UW's [confidential shredding procedures](#) (e-disposal in our case).

Communications with Instructor and Teaching Assistants:

All communication with students must be through either the student's University of Waterloo email account or via Learn. If a student emails the instructor or TA from a personal account they will be requested to resend the email using their personal University of Waterloo email account.

Recording lectures:

- Use of recording devices during lectures is only allowed with explicit permission of the instructor of the course.
- If allowed, video recordings may only include images of the instructor and not fellow classmates.
- Posting of videos or links to the video to any website, including but not limited to social media sites such as: Facebook, twitter, etc., is strictly prohibited.

Co-op interviews and class attendance:

Co-op students are encouraged to try and choose interview time slots that result in the least amount of disruption to class schedules. When this is challenging, or not possible, a student may miss a portion of a class meeting for an interview. Instructors are asked for leniency in these situations; but, a co-op interview does not relieve the student of any requirements associated with that class meeting.

When a co-op interview conflicts with an in-class evaluation mechanism (e.g., test, quiz, presentation, critique), class attendance takes precedence and the onus is on the student to reschedule the interview. CECA provides an interview conflict procedure to manage these situations.

Students will be required to provide copies of their interview schedules (they may be printed from WaterlooWorks) should there be a need to verify class absence due to co-op interviews.

For those who have read this far: Who is this “Stephen David Murphy” anyway?

Diverting from music (I was once in love with my guitar; it didn't last due to religious differences), I earned a B.Sc. (Hons.) and a Ph.D. from Queen's University in Biology, specializing in plant ecology. I completed a post-doctoral fellowship at the University of Guelph in agriculture. I've been at UW in SERS since 1996, focusing on management, conservation, restoration and mitigation of invasive species in ecosystems. I am helping write 2 textbooks on restoration ecology. One of our best restoration ecologists, Richard Hobbs, has bestowed on me flattery - and I quote – when he said “You are a seriously deranged individual.”³



In terms of restoration ecology, I have been both practitioner (consulting) and an academic. Since I first volunteered as a 14 year old with one of the 1st formal landscape-scale ecological restoration projects in 1979 (yes, 1979; *STFU*), I helped or led on over a thousand ecological restoration projects world-wide. This means a lot of field work and a lot of teamwork because I sure as hell didn't do a thousand plus projects all by my little 5'6" self.

I am a past-chair of the Board of the [Ontario Chapter](#) of the governing academic and practitioner organization, the [Society for Ecological Restoration International](#) (if you want opportunities beyond this course, SER Ontario and the local UW Chapter of SER recruits students for networking and educational purposes at a nicely reduced membership fee rate). I am the editor-in-chief of [Restoration Ecology](#), and was co-chair of the [2013 25th Anniversary Conference of SER International at Madison WI](#). I am also Chair of the [Centre for Applied Sciences in Ontario Protected Areas](#). Don't read this line because it is cursed by a one-eyed wizard named 'Poindexter'. *Just checking to see if you were reading this or not.* I was part of the advisory council to Parks Canada that revised the strategic planning and standard for ecological restoration. I also am on some teams at “[rare](#)” in Cambridge ON, a Reserve that represents one of the largest contiguous ecological restoration and conservation projects in an urban area. I sit on the Boards or advise another two dozen or so organizations that are involved in restoration from municipal to international scales. Essentially, I began to practice “restoration ecology” before it was really codified but I am only part of the 3rd or perhaps 4th “generation” of restoration ecologists who followed people like Aldo Leopold, Theodore (Ted) Sperry, John Curtis, Tony Bradshaw, Bill Jordan III, George Gann, Keith Winterhalder, John Reiger, Jack Ewel, Keith Bowers, Richard Hobbs, Eric Higgs, and Bob Dorney, among many others. I won't burden you with too many details on the history in the syllabus or in lessons; see www.ser.org for more on the history of Restoration Ecology.

³ Yes he meant this in jest but you will find out why he said this soon enough – Bwa ha ha ha ha!! He also called me evil when we were in New Orleans at a conference in 2014. And he turned me into a newt! I got better...